

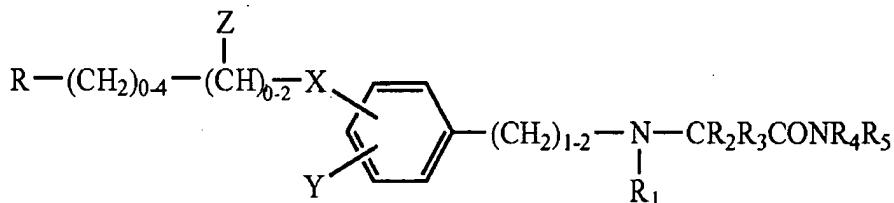
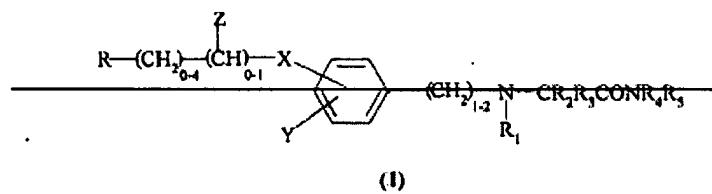
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-8. (cancelled)

9. (withdrawn and currently amended) A method for treating urinary tract infection, comprising administering an effective amount of at least one therapeutic agent which is an alpha-aminoamide compound of formula (I),



wherein:

R is a furyl, thieryl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents

independently selected from halogen, hydroxy, cyano, ~~C1-C6~~ C1-  
C6 alkyl, C1-C6 alkoxy or trifluoromethyl; [\*]]

~~R1~~ R1 is hydrogen or C1-C6 alkyl or C3-C7 cycloalkyl;

R2 and R3 are independently selected from hydrogen; C1-C4 alkyl, optionally substituted by hydroxy or phenyl, phenyl[[],] in which the phenyl rings being optionally substituted by one or two substituents independently selected from C1-C6 alkyl, halogen, hydroxy, ~~C1-C6~~ C1-C6 alkoxy or trifluoromethyl; or R2 and R3 taken with the carbon atom which they are linked to, form a C3-C6 cycloalkyl ring; [#]]

~~R4, R5~~ R4 and R5 are[[],] independently[[],]  
hydrogen, C1-C6 alkyl or C3-C7 cycloalkyl; or R4 and R5, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring;

X is ~~CH2~~ CH2, O, S; and

~~dz~~ Z are hydrogen or taken together form a 5-7 saturated or unsaturated carbocycle or a heterocycle Y and Z taken together form a dihydrobenzofuran, and/or;

or isomers stereoisomers, mixtures, and pharmaceutically acceptable salts thereof.

10. ~~(withdrawn and currently amended)~~ The method according to claim 9, wherein the compound is selected from:

2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide; 2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide; 2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; <BR>-<BR><BR><BR> 2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide; 2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; <BR>-<BR><BR><BR> 2-3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-N-methyl-propanamide; 2-[ (3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide; 2-[ (3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide; 2-3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; 2-3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-N-methyl-propanamide; 2-3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; <BR>-<BR><BR><BR> 2-{3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; <BR>-<BR><BR><BR> and 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide;

~~2-{(3-Phenethyl-2,3-dihydro-benzopyran-6-ylmethyl)-amino}-propanamide; 2-{(4-Phenethyl-2,3-dihydro-benzoxepin-7-ylmethyl)-amino}-propanamide; 2-{(3-Benzyl-2,3-dihydro-~~

~~benzothiophen 5 ylmethyl) amino} propanamide; 2-(3-[2-(2-~~  
~~Fluoro benzyl)] 2,3 dihydro benzothiophen 5 ylmethyl) amino}-~~  
~~propanamide; 2-(3-[2-(3-Fluoro benzyl)] 2,3 dihydro-~~  
~~benzothiophen 5 ylmethyl) amino} propanamide; 2-[3-Phenethyl-~~  
~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; 2-~~  
~~{3-[2-(2-Fluoro phenethyl)] 2,3 dihydro benzothiophen 5-~~  
~~ylmethyl) amino} propanamide; 2-(3-[2-(3-Fluoro phenethyl)]-~~  
~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; and~~  
~~2-(3-[2-(3-Fluoro phenethyl)] 2,3 dihydro benzothiophen 5-~~  
~~ylmethyl) amino} N methyl propanamide.~~

11. **(withdrawn)** The method according to claim 9,  
wherein the compound is selected from: 2-(4-Phenethyl-  
benzylamino)-propanamide; 2-(4-Benzylxybenzylamino)-  
propanamide; 2-(3-Benzylxybenzylamino)-propanamide; 2-(4-  
Benzylthiobenzylamino)-propanamide; 2-(4-Benzylxy-  
benzylamino)-3-N,N-dimethyl-butanamide; 2-[4-(2-  
Methoxybenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[3-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-2-methyl-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-N-methyl-propanamide; 2-[3-(3-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(3-

Fluorobenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Methoxybenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Cyanobenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-2-methyl-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-N-methyl-propanamide; 2-[4-(4-Fluorobenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-2-methyl-propanamide; 2-[4-(2-Chlorobenzyl oxy)-benzylamino]-propanamide; 2-[4-(3-Chlorobenzyl oxy)-benzylamino]-propanamide; 2-(4-Benzyloxybenzylamino)-3-hydroxy-propanamide; 2-[4-(2-Fluorobenzyl oxy)-benzylamino]-3-hydroxy-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-3-hydroxy-propanamide; 2-(4-Benzyloxybenzylamino)-3-hydroxy-N-methyl-propanamide; 2-[4-(2-Fluorobenzyl oxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Fluorobenzyl oxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(2-Chlorobenzyl oxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Cyanobenzyl oxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Cyanobenzyl oxy)-benzylamino]-2-methyl-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Chlorobenzyl oxy)-phenylethylamino]-propanamide; 2-[4-[2-(3-Fluorophenyl)-ethyloxy]benzylamino]-propanamide; 2-[4-[2-(3-Fluorophenyl)-ethyl] benzylamino]-propanamide; 2-[N-(4-Benzyl oxybenzyl)-N-methylamino]-propanamide; 2-4-[ (3-

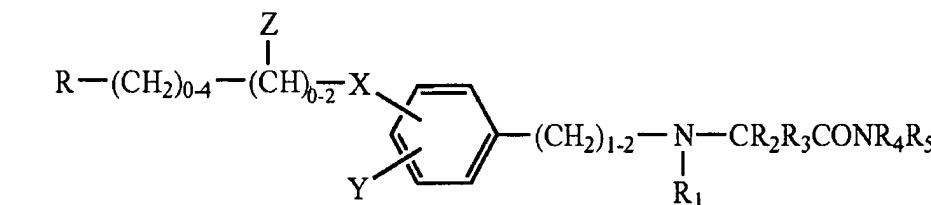
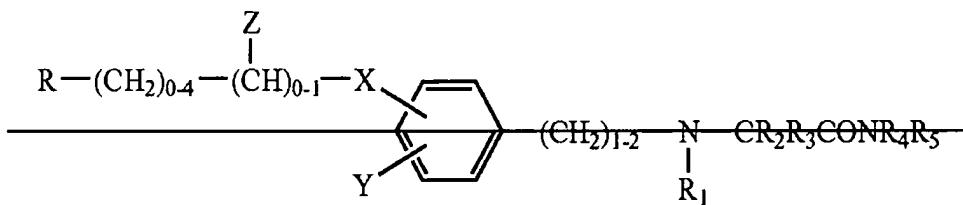
Chlorobenzylxyloxy)-phenylethyl]-amino}-propanamide; 2-[4-Benzylthiobenzylamino]-propanamide; 2-[4-(2-Fluorobenzylthio)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzylthio)-benzylamino]-propanamide; 2-[4-(3-Phenylpropyloxy)-benzylamino]-propanamide; 2-[4-(4-Phenylbutyloxy)-benzylamino]-propanamide; 2-[4-(5-Phenylpentyloxy)-benzylamino]-propanamide; 2-(4-Benzylxybenzylamino)-3-phenyl-N-methyl-propanamide; 2-(4-Benzylxybenzylamino)-3-hydroxy-N-methyl-butanamide; 2-(4-Benzylxybenzylamino)-3-methyl-N-methyl-butanamide; 2-(4-Benzylxybenzylamino)-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(3-Fluorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzyl-N-methylamino]-2-phenyl-acetamide; 2-[4-(3-Fluorobenzylxy)-benzyl-N-methylamino]-2-phenyl-acetamide; 2-[4-(3-Chlorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-(2-fluorophenyl)-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; 2-[4-(3-Fluorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; 2-[4-(3-Chlorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; and 2-(4-(2-Thienyloxy)-benzylamino)-propanamide.

12. (withdrawn) The method of claim 9, wherein said lower urinary tract disorders are overactive bladder (OAB), prostatitis and prostdynia, interstitial cystitis, benign prostatic hyperplasia and urinary incontinence as the consequence of the above pathologies.

13. (withdrawn and currently amended) The method of claim 9, wherein the ~~α~~-aminoamides α-aminoamides are (S)-(+)-2-[3-(2-fluorobenzylloxy)-benzylamino]-propanamide; (S)-(+)-2-[4-(2-~~BR~~-~~BR~~-~~BR~~-~~BR~~-~~BR~~-fluorobenzylloxy)-benzylamino]-propanamide, (S)-(+)-2-[4-(2-fluorobenzylloxy)-~~BR~~-~~BR~~-~~BR~~-~~BR~~-~~BR~~-benzylamino]-N-methyl-propanamide, (S)-(+)-2-[3-(3-fluorobenzylloxy)-~~BR~~-~~BR~~-~~BR~~-~~BR~~-~~BR~~-~~BR~~-benzylamino]-propanamide, (S)-(+)-2-[4-(3-fluorobenzylloxy)-benzylamino]-propanamide, (R)-2-(4-benzyloxybenzylamino)-3-phenyl-N-methyl-propanamide; (2R,3S)-2-(4-Benzylloxybenzylamino)-3-hydroxy-N-methyl-butanamide; (S)-(+)-2-[4-(3-fluorobenzylloxy)-benzylamino]-N-methyl-propanamide, (S)-(+)-2-(4-phenethyl-benzylamino)-propanamide, (R)-(-)-2-(4-benzyloxy-benzylamino)-3-N,N-dimethyl-butanamide, (S)-(+)-2-(4-benzylthiobenzylamino)-propanamide, and 2-[(3-phenethyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide and (2R/3'S,R)-2-[(3-phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide, 2-(3-[2-

(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl)-amino)-propanamide, 2-[3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl]-amino)-propanamide, (2R/3'S,R)-2-[3-[2-(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl]-amino)-propanamide, (2R/3'S,R)-2-[3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl]-amino)-propanamide.

14. **(currently amended)** An  $\alpha$ -aminoamide compound represented by the following formula (I):



wherein:

R is a furyl, thiienyl, pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl;

R<sub>1</sub> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl;  
R<sub>2</sub> and R<sub>3</sub> are independently selected from hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted by hydroxy or phenyl, phenyl in which the phenyl rings being optionally substituted by one or two substituents independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl; or R<sub>2</sub> and R<sub>3</sub>, taken with the carbon atom which they are linked to, form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring;

R<sub>4</sub> and R<sub>5</sub> are independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl; or R<sub>4</sub> and R<sub>5</sub>, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring;

X is CH<sub>2</sub>, O, or S; and

Y and Z taken together form a dihydrobenzofuran, a dihydrobenzothiophen, a dihydrobenzo (thio) pyran, or a tetrahydrobenz (thio) oxepin heterocycle and/or ~~isomers~~ stereoisomers, mixtures, and pharmaceutically acceptable salts thereof.

**15. (currently amended)** The compound according to claim 14, wherein said compound is selected from the group consisting of:

2-[(3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide; 2-[(3-Benzyl-2,3-dihydro-benzofuran-5-

ylmethyl)-amino]-N-methyl-propanamide; 2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; 2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide; 2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; 2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide; 2-{(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino}-propanamide; 2-[(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide; 2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; 2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide; 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; 2-{3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-propanamide; and 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-propanamide; 2-[(3-~~Phenethyl~~ 2,3 dihydro benzopyran-6-ylmethyl) amino] propanamide; 2-[(4-~~Phenethyl~~ 2,3 dihydro benzoxepin-7-ylmethyl) amino] propanamide; 2-[(3-Benzyl 2,3 dihydro benzothiophen-5-ylmethyl) amino] propanamide; 2-{3-[2-(2-~~Fluoro~~ benzyl)] 2,3 dihydro benzothiophen-5-ylmethyl}-amino)-propanamide; 2-{3-[2-(3-~~Fluoro~~ benzyl)] 2,3 dihydro benzothiophen-5-ylmethyl}-amino)-propanamide; 2-[(3-~~Phenethyl~~

~~2,3 dihydro benzothiophen 5 ylmethyl) amino) propanamide; 2-~~

~~{3 [2 (2 Fluoro phenethyl)] 2,3 dihydro benzothiophen 5-~~

~~ylmethyl) amino) propanamide; 2 (3 [2 (3 Fluoro phenethyl)]~~

~~2,3 dihydro benzothiophen 5 ylmethyl) amino) propanamide; 2-~~

~~{3 [2 (3 Fluoro phenethyl)] 2,3 dihydro benzothiophen 5-~~

~~ylmethyl) amino) N methyl propanamide; and~~

isomers stereoisomers, mixtures, or pharmaceutically acceptable salts thereof.

16. (previously presented) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and, as an active agent, an effective amount of the  $\alpha$ -aminoamide compound according to claim 14.